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Company Vision & Mission

Vision:

- Be the world leader and premier supplier of fuel-tolerant, low-cost, solid oxide fuel cell stacks to fuel cell system integrators

Mission:

- Partner with system integrators, manufacturers and distributors who will manufacture and sell complete fuel cell power generators at a competitive price

Business Strategy

- **Manufacture & sell customized, modular SOFC stacks (20-800 W & 1-50 kW) to strategic OEM partners**
- **Focus on core technology (stack), leverage with manufacturing, sales and distribution partners**

Products

Ascent Power Systems
The Solid Oxide Fuel Cell Company

Solid oxide fuel cell stacks (20 W to 50 kW):

- Monolithic design (robust with no mechanical seals, springs or clamps)
- Custom-fuel operation reduces system costs, complexity, and size:
  - Natural gas
  - Liquid propane
  - Diesel
  - Hydrogen
- Low-cost stack fabrication

Markets

Existing Markets:

- **Stationary:** (residential, commercial & communications)
- **Mobile/Portable:** (soldier power, communications)
- **Transportation:** (APUs, RVs, long-distance trucking)

Potential Markets:

- **Aerospace:** (APUs, environmental control system, main engine start, de-icing, electric actuated control surfaces)
- **Renewable:** (biomass power for remote, rural power, developing countries)

Market Opportunity

- **Growth of SOFC - 36.9% AAGR to $260 million by 2005”** - Business Communications Company, October 2000
- **Stationary FC markets AAGR - 49.6% by 2005**
  - Frost and Sullivan, March 2001
- **Potential Stationary Power Generator market - $10 billion** - Allied Business Intelligence, June 1999
- **Portable Power Units for military applications –**
  - **$346 million in 2004 to $501 million in 2009**
    - Darnell Group, Jan 2003

Huge Market Potential – Large and Growing Power Market

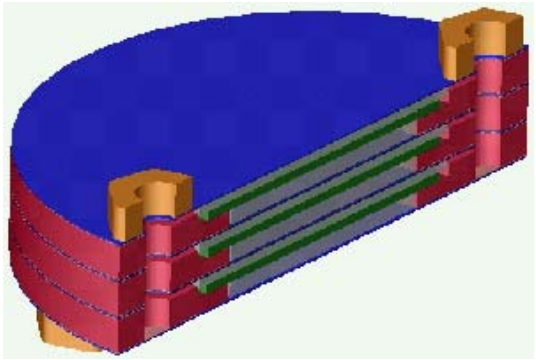
Ascent's Product Advantages

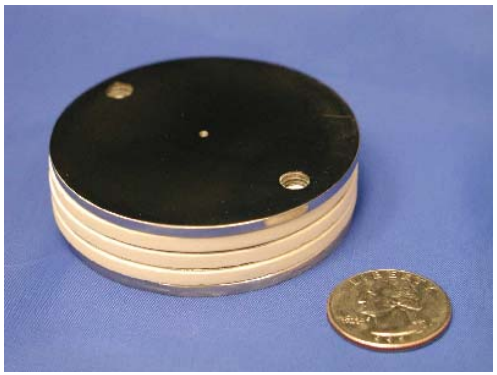
Stack Design

- Low-cost fabrication
- Monolithic structure (robust, no mechanical seals, springs or clamps)

Custom-fuel Stack

- Natural gas, liquid propane and diesel with minimal pretreatment
- Hydrogen if available
- Reduces system costs, complexity, and size

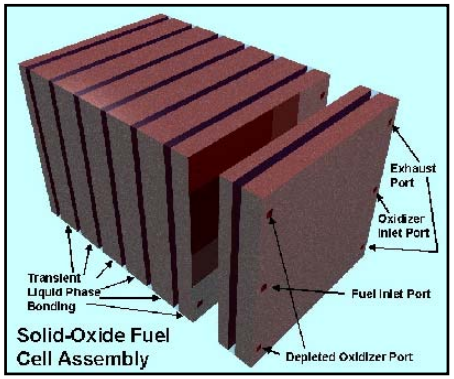




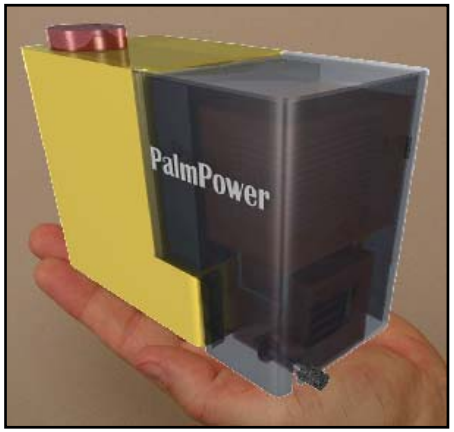
Technology provides commanding commercial advantages

Technology Validation

- **NIST ATP: $2 M government, $1 M cost share**
- **DARPA Palm Power: $6.8 M government, no cost share**
- **Potential customer for palm power – US military**



NIST Program



DARPA Program

Government experts have validated our technology!

Differentiation & Value Proposition

- **Technology:**
  - Monolithic fuel cell stacks
  - Fuel tolerant electrodes
- **Markets:**
  - Corner portable military power
  - Dominate commercial telecommunications
  - No other major player in the remote power from propane fuel & higher hydrocarbons (fuel tolerant electrodes)
- **Costs:** minimal external fuel reforming leads to reduced components and plant cost by >30%
- **Bottom Line:** Lower cost product, well positioned in the market

Powerful technology differentiators

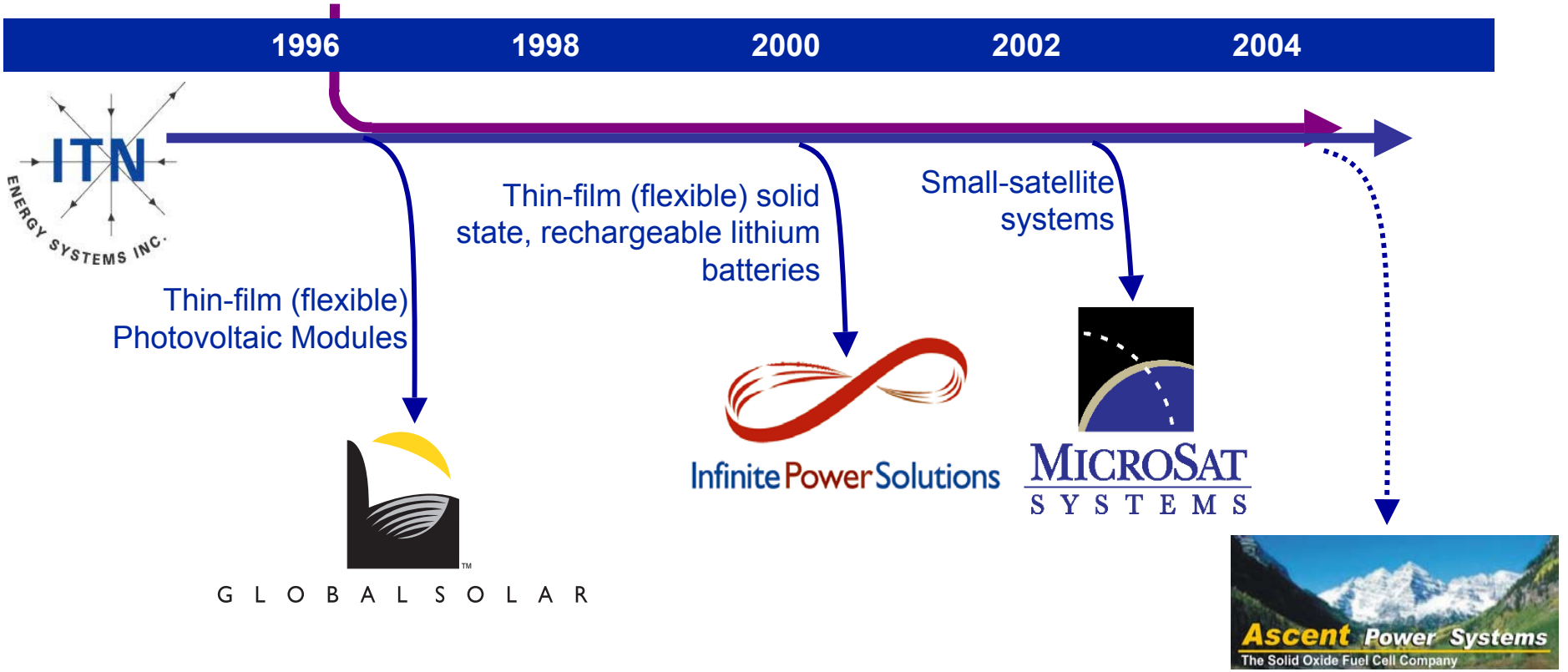
Potential OEM Customers

- **Power Generation/Storage:**
  - Power Generators & Engine Manufacturers
  - System Integrators
- **Other Fuel Cell Companies:**
  - Proton exchange membrane (PEM) fuel cells manufacturers interested in expanding into SOFC (Ballard, Plug Power, Nuvera, Avista Labs, Sanyo, etc.)
  - Direct methanol fuel cells manufacturers interested in expanding into SOFC (Ball, Motorola, Toshiba, NEC, etc.)
  - Phosphoric acid and molten carbonate fuel cells manufacturers interested in expanding into SOFC (UTC Fuel Cells & FCE)
- **Solid Oxide Fuel Cells System Integrators:**
  - Siemens Westinghouse, GE, Fuel Cell Energy, Sulzer-Hexis, Delphi, Cummins/McDermott, etc.

Technology, business strategy & funding will consolidate field

Company Heritage

Strategic investment and product development partner(s)



History of creating advanced technology companies

The People

Management Team:

William Barker: President; 35 years of innovative technology management experience including founder and Manager of ITN's Solid Oxide Fuel Cell Division, formerly President of ITN Energy Systems, President of Barker & Associates, a consulting practice, and a DARPA Program Manager. He also started two high temperature materials labs, and was a US Air Force pilot.

Lee Petersen: VP Business Development; BS/MBA, leads business development, 21 years of engineering and business development experience including Lockheed-Martin and Northrop.

Ammi Amarnath: Business Consultant; MS/MBA; 20 years of technical and business experience in power & distributed energy industry, technology industries, and fuel cell start up company.

The People

Product Development Team:

Dr. Paul Thoen: Manager, Research Operations; PhD; leads fabrication process development and multikilowatt stack fabrication, over 13 years of R&D and product development experience.

Dr. Neal Sullivan: Manager, Design, Fabrication & Assembly; PhD; leads development of the rugged "ceramic-frame" sub-kilowatt cells and stacks, over 12 yrs R&D experience.

Dr. David Peterson: Manager, Electrochemical Performance & Testing; PhD; leads performance characterization and improvement, over 10 yrs experience in fuel cell development.

Additional 7 Process & Ceramic Engineers and 1 Technician.

Team has >80 cumulative years of advanced ceramics product development experience.

A strong foundation to build a fuel cell business

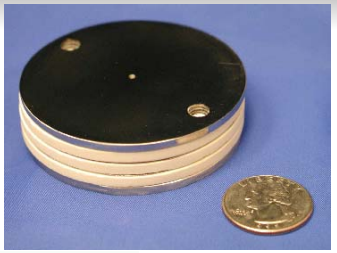
Financial

- **Amount previously funded:**
  - **~$12 million**
- **NREL Industry Growth Forum goal:**
  - Initiate investor discussions to secure $10 million funding to complete product development & market introduction
- **Seeking $10 million funding over 2 years for:**
  - Product development
  - Life extension and endurance testing
  - Field trial demonstrations
  - Building a powerful marketing team

Summary

Monolithic Design

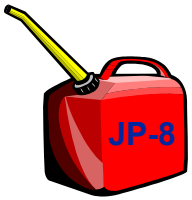
- Patented solution for sealing problems that plague the SOFC industry



Customizable, Fuel Tolerant Stacks

- Use fuels directly with minimal preprocessing

to



Renewable Fuels

- Developing a renewable energy focus

Strategic Relationships

- Leveraging internal expertise, academic collaborators, strategic partnerships and private financial assets with government contracts

Customers are in place

- Remote & transportation power; US military

Looking for investors and strategic partners